

These hammers and rubbers are described in Chapter X, section 7. The processes performed were smashing blows to knock off projections, tapping blows to bruise and crush the surface, and rubbing motions. The irregular lumps of very compact black granite of which a score or more were found in the unfinished room (10) have a bruised surface like that produced by the bruising and rubbing on the unfinished statuettes and were apparently used both for bruising and rubbing. Most of them would have required both hands to operate, and many of them had been split by pounding. Their used surfaces are all rounded, and I imagine the final flat dressing was carried out with a flat faced stone of larger size, perhaps a rectangular slab of granite worked by two men.

#### (4) *Free-Standing Walls*

With one exception the granite walls of Dynasty IV appear to have been cased core walls like those of the Mycerinus temple. The exception is the court of the Chephren pyramid temple, called by Dr. Hoelscher the "Statuen-Hof"<sup>1</sup> which is stated to have been of granite, although not so shown in the plan. Free-standing walls of limestone occur in this temple in the inner magazines west of this room and are common in the mastaba chapels of the period. The earliest example of this type of masonry is, I believe, the pyramid temple of Sneferuw at Medûm.<sup>2</sup> That temple was of limestone, perfectly preserved and entirely unscribed except for the graffiti of visitors, the earliest of whom were of Dynasty XVIII. The area of the temple was very small, about 8.95 meters long (measured on the plan) from the base line of the pyramid and 8.65 meters wide, and the workmanship is described by Professor Petrie as "solid and sound but not refined." "The stone is left rough" or partially dressed "in many parts." The masonry and the unfinished condition of the temple correspond very closely with the inner part of the Mycerinus pyramid temple built in Dynasty VI, and the temple is so small that a doubt arises in my mind whether this pyramid temple of Sneferuw was the original temple. This type of structure may assuredly be expected in the time of Sneferuw, and I regret that I do not feel safe in using it as direct evidence for the period.<sup>3</sup>

The inner part of the Mycerinus pyramid temple is of limestone, and consists as already described of two very different structures, one in Turah limestone and the other in local limestone. The kernel structure of white limestone (see Fig. 7, p. 23), which I ascribe to Shepseskaf, resembles in its masonry some of the mastaba chapels of Dynasty IV, especially those in the southern division of the great Giza cemetery. The walls were unfortunately not preserved above course 2; and as the masonry of the foundations built around the massive granite pavement of Mycerinus was not normal, a retaining wall had been constructed, and as it rose the space between it and the mass of granite had been filled with rather carefully laid rubble. The noticeable point is that the top of each course was levelled and smooth, that the facing line of the next course above was scored both on the foundation platform and on each course, exactly as in the chapels of white limestone in the cemetery of Dynasty IV. The niche, or niches, are shown by the preserved niched stone to have been built of long stones set on end as in those chapels.

The second structure, of the poorer nummulitic limestone, had been left undisturbed by the quarrymen and was practically intact (see Pls. I-III). It was built against the kernel structure wherever the two came in contact and was thus clearly later in date as well as different in material. The type of masonry is that of the chapels built of the same material, belonging to the mastabas of Dynasties V and VI. The walls are of two types, a thinner wall which is a single stone thick and a thicker wall generally two stones thick (the south wall of room (27), the wall between rooms (27) and (26), the wall between rooms (26), (27), and (28), and the northern wall of the whole structure). The blocks of the single-stone wall are usually large and run lengthwise in the first two or even three courses, but the courses are of two stones (see Pl. II, section O-P). The two-stone walls have occasionally alternate one-stone and two-stone courses, as in south wall of room (27) (see Pl. II, section K-L), and occasionally a single stone set at the ends of a course as the eastern wall of room (28).

<sup>1</sup> Hoelscher, *Chephren*, p. 64.

<sup>2</sup> Petrie, *Medum*, pp. 8 and 9, and Pl. IV.

<sup>3</sup> Since writing the above the temple of Zoser at Saqqara has been excavated by Mr. Firth and proves the construction of free-standing limestone walls at the beginning of Dyn. III.

All the stones in this later structure were laid rough by methods similar to those described for the granite casing, but without being "floated" on plaster. It may be recalled that the rooms (27), (30) to (35) had not been finished. In the doorways of these rooms, the sockets for the upper door-blocks had been cut in the lintels and the wooden blocks set in these sockets with reddish plaster before the lintels were mounted and while the walls were still undressed. Although the roofs had been laid, the surfaces of the walls were bulging and uneven leaving narrow crooked spaces between, in room (30) so narrow that a man passes through with some inconvenience. When excavated these rooms were found filled to the roof or nearly to the roof with masons' débris deposited in layers about equal in height to the corresponding courses, and it was clear that these layers served as construction platforms for the courses of the walls. In rooms (30) and (31), the dressing of the surfaces of the walls had been begun at the top and the construction platform had been partially removed. In room (27), the same condition of the process of dressing was observed, but there the whole of the construction plane had been removed to make way for the Roman communal burial. The conclusion is obvious that the walls were dressed from the top down. The tool marks on the surfaces in process of dressing prove that the implements used were the chisel of hardened copper and the pear-headed wooden mallet of which numerous examples were found in the Giza mastabas. The chisel which left a groove about 14 mm. wide was similar to those actual copper blades found in the Senezem-ib complex in the great cemetery. This consisted of a heavy rectangular shaft about 12 cm. long and a broad cutting edge about 14 mm. wide. Such chisels, as is well-known, were set in sockets at the end of a wooden handle.<sup>1</sup> The finished rooms, (26) and (28), show that the final dressing was done by rubbing with stone, and that the surfaces were finally sized with fine plaster. In dressing back the walls the excess of the stone at the bottom was left projecting and was dressed level with the floor. The floor consisted of stone slabs fitted to the stones built in the walls.

The plan seems not to have been marked on the foundation platform as was done for the better structures of Dynasty IV, nor could we find any trace of facing lines on the courses.

In five of the six square pillars in room (27), the shaft consisted of two stones, a tall stone, 220–270 cm. high, and a short upper stone, 95–45 cm. high. The sixth pillar, that on the south, had two small stones instead of one. The usual square architrave ran north and south across the tops of pillars. The eastern ends of the eastern row of roofing slabs rested in a groove cut in the old core wall of the outer temple; and the western ends of the western row must have rested in a groove cut in the white limestone wall of the kernel structure, which rose considerably higher than the roof of room (27). The sides of the pillars, like the wall surfaces of this room had not been completely dressed, but were more advanced than the walls. The pillar in room (26) was a monolith and rested on a large block of stone which descended to the rock. The upper surface of this stone had been dressed to form a low square pedestal about 5 cm. high for the monolithic pillar and the flanges on the four sides of the pedestal had been dressed to form part of the paved floor of the room. The architrave and the roofing slabs were built as in room (27), but the western ends of the western row of roofing slabs rested on the contemporary wall between rooms (26) and (28). The surfaces of the walls and the pillar in room (26) had been finely dressed and sized with plaster.

Room (26) had the only window found in any of the temples. For a time I thought that a slot in the upper part of the west wall of room (28) was also a window, but a more careful examination proved this supposed window was only an empty place from which a stone of the wall had been removed. The window in room (26) consisted of a narrow horizontal slot at the top of the wall, over the doorway to room (27) and just under the roof. It opened into an irregular vertical shaft which descended between the southern roofing slab of room (26) and the northern roofing slab of room (27), so that the light fell vertically on the sloping bottom of the slot and was reflected into the room.

An inclined plane of much worn limestone boulders rested against the western wall of the outer temple and led from the ground northwards to the top of the walls of the inner temple. This was built against the crude-brick casing of the outer temple and against the broken end of that casing — the broken end left after the old inner temple of crude brick had been removed — as well as against the limestone

<sup>1</sup> See Chapter IX, *Copper Vessels and Implements*, for remarks on the hardening of copper.

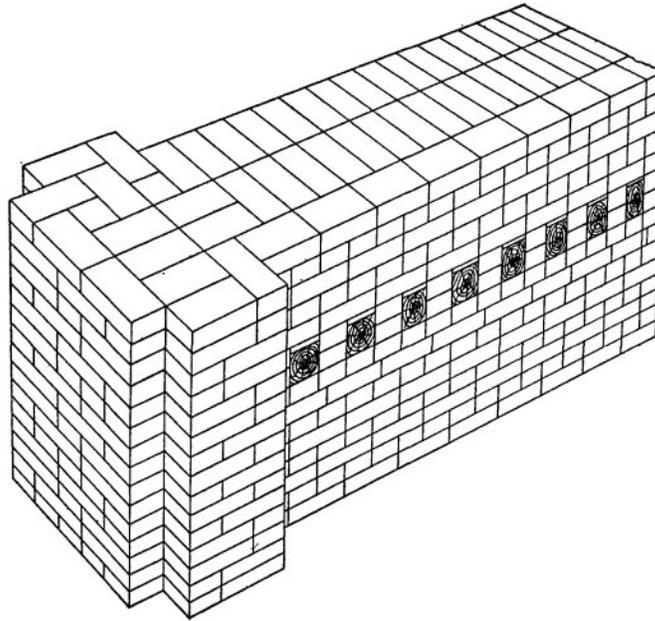
walls of the later inner temple. It had manifestly been used to bring up the roofing slabs of room (27) and perhaps of the whole inner temple. Another plane may have led up to the roof from the north, but this would have been removed on account of the exit from room (26) to the pyramid enclosure.

(B) CRUDE-BRICK CONSTRUCTION

The use of crude brick in the temples built by Shepseskaf, in the screen walls, in the various alterations, and in the valley temple of Dynasty VI, presented in general the characteristics of other structures of crude brick built in the Old Kingdom.

(1) *Bonding*

Ordinary Egyptian brickwork has carefully bonded faces with header and stretcher courses in alternation, usually three header courses to one stretcher course, but sometimes with one header and one stretcher course in strict alternation. In the brickwork of the Mycerinus temples, the alternating header and stretcher courses in the exposed faces and the bonding are more carefully executed than in



*Bonding in wall between M.P.T. 17 & 18.*

Scale 0 10 30 50 70 100 Cm.

FIGURE 17

ordinary brickwork. The bonding depends on the fact that at the corners two courses of headers alternate with two courses of stretchers. The alternation of one header course with one stretcher course in the rest of the wall brings a header continuation of one of the two stretcher courses and a stretcher continuation of the other; and the same is true of the continuation of the two header courses. Thus every other joint in a header course is broken by a stretcher above each joint and the alternate joints in the same header course are broken by a stretcher below each joint (see Pl. V, 7). For example, in the southern half of the eastern wall in III-*a*, the courses counted from above consisted of:

- |  |  |
|--|--|
| Course 1, all headers from corner.           | Course 5, all headers from the corner.           |
| Course 2, all stretchers from corner.        | Course 6, all stretchers from the corner.        |
| Course 3, one stretcher followed by headers. | Course 7, one stretcher followed by headers, and |
| Course 4, one header followed by stretchers. | so on.   |

This is a really beautiful system of face bonding as may be seen from the drawings (Pl. V, 7 and Fig. 17). Another fine example was the high southern casing wall of corridor (13) in the pyramid temple (Figs. 11-13), but there a certain amount of irregularity was introduced in the lower courses. And in general in long walls the use of defective and trimmed bricks was apt to affect the regularity of the bonding in places.

The internal bond appears to have been theoretically quite as fine as the facing bond, but the execution was defective. It has been repeatedly observed that the work of the Egyptian mason was careless and slipshod where it was hidden from direct observation. On taking down the wall mentioned above, the southern half of the eastern wall of room (9) in the temple of III-*a*, it was seen that the wall had the thickness of three and one-half lengths of a brick. Each course had headers in both faces or stretchers in both faces. Behind the faces, the bricks were generally laid as headers; but this left in each course an extra half-brick width which was filled with a line of stretchers running the length of the wall. The position of this line of stretchers was shifted in each succeeding course half a brick towards one face or the other so that looking at a section the lines of stretchers formed a zigzag running from the top of the wall to the bottom. These internal stretchers together with the stretchers on the faces tied the wall solidly in the longitudinal direction while the headers, both those in the wall and those on the faces, tied the wall crosswise. A few courses were laid quite regularly according to this system of bonding, but almost always there were irregularities, a half-brick inserted instead of a whole one, the place for an internal stretcher filled with lumps of mud, and once a header laid diagonally in the place of two

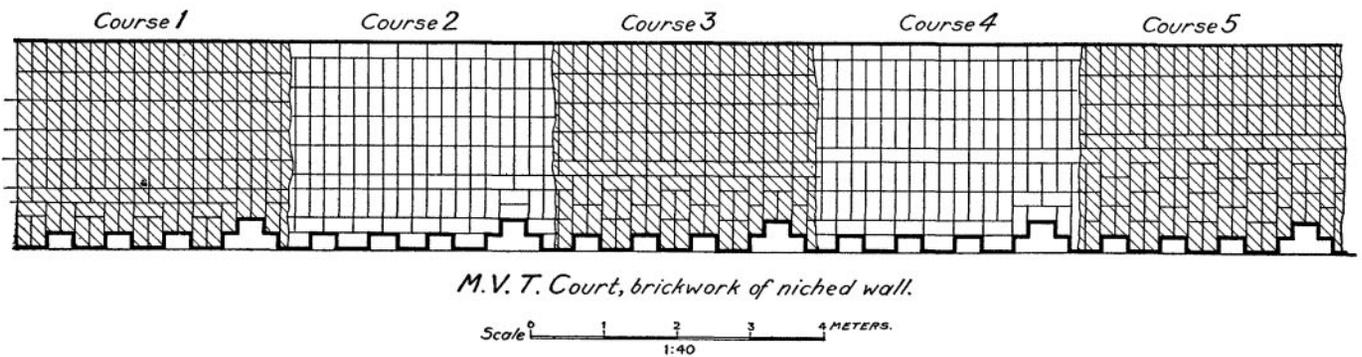


FIGURE 18

headers. This was the system when the thickness of a wall was an even number of bricks plus one half brick. When the thickness of the wall was exactly an even number of bricks, a course which had stretchers in one face had headers in the other and vice versa; but the internal bond was similar to the other width of wall (see Pl. V, 6). The system of bonding lent itself readily to niche-work in the face of the wall (see Fig. 18).

The casing walls built against the older stone walls had the same bonding of the face as the other walls, but behind the face the bricks were almost exclusively headers (Figs. 11, 12) laid very loosely and carelessly.

The crude bricks were laid in thick mud plaster of about the same consistency as the bricks themselves, and increased greatly the cohesion inherent in the system of bonding.<sup>1</sup> The brickwork was in all cases covered with a thick mud plaster, 1-4 cm. thick which in turn was coated with a layer of white plaster. The mud plaster commonly used on the walls of the temples built by Shepseskaf was a yellowish mixture and quite characteristic. But on the later walls, black mud plaster was used. The Egyptian architect seems never to have been willing to admit the presence of brickwork in his walls. At the same time, the plastering was a great protection against weathering.

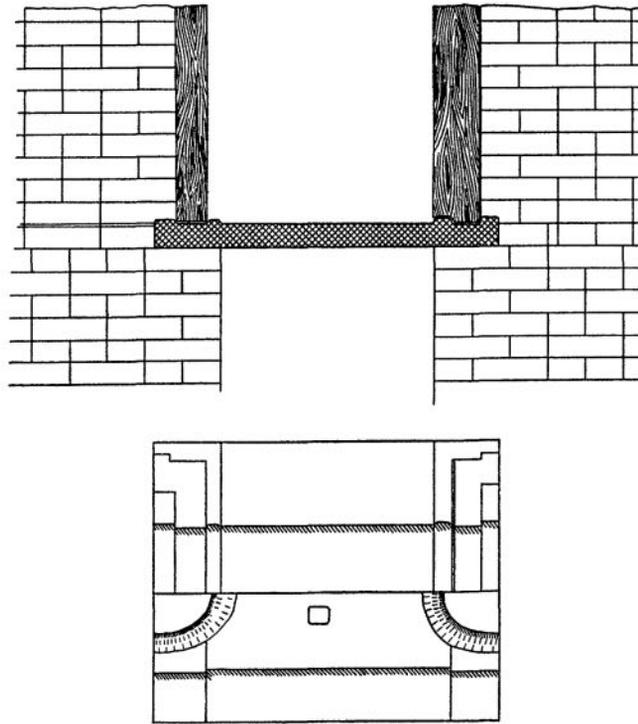
### (2) Foundations of Crude-Brick Walls

The ordinary Egyptian manner of preparing the foundations of a crude-brick structure at the present day is to lay out the plan with strings or cords fastened to pegs, or bricks, or stones, to clear away the soft surface rubbish in the lines of the walls, to mark the corners of walls and doorways with dry bricks, and then to lay the first course in mud mortar directly on the ground, leaving spaces for the doorways. When the ground is uneven, the first course often consists of bricks set on edge in the lowest

<sup>1</sup> In connection with the Egyptian crude-brick walls, I would call attention to the *khalûfa* walls of the Sudan. *Khalûfa* are great rectangular clumps of mud like the hand-made lump which the Egyptian brick-maker prepares for the mold, but much larger and thicker. These are laid wet in the wall and dry in place; and each course must dry before the next is laid. The slowness of the proceeding is admirably adapted to the temperament of the Sudanese, and the wall is surprisingly solid and enduring.

places, leaning more or less and even turned on the side in the higher places, so that the top of the course is practically level. It is seldom that foundation trenches are dug for crude-brick walls.

In all the crude-brick walls of the Mycerinus temples, including those of the small pyramids but not the screen walls founded on an older pavement, the bases of the walls lay from one to seven courses below the living floor of the temple. In the pyramid temple, the crude-brick walls were founded on the rock platform; and the floors were filled in and plastered or paved after the construction of the walls. In corridor (13) the floor was 46 cm. above the foot of the wall. In the other crude-brick temples the foundation floor was prepared either (1) by clearing the desert surface (III-c) or (2) by laying down a hard packed layer of gravel and rubbish over the foundation platform of the unfinished stone temple (M. V. T., III-a, and III-b). On this earthen platform the plan of the building was laid out by the architect using cords to guide the lines and leaving spaces for the doorways. These foundations varied



*Plan & Elevation of threshold & doorway, M.V.T.  
1 to 2 First Temple.*

Scale 0 10 30 50 70 100 Cm.

FIGURE 19

in depth with the varying level of the platform, but reached a nearly common level at the height of the projected floors. Thus, for example, the walls in the northern half of the temple III-a, are only from one to two bricks deeper than the floors, while at the southeast corner they reach to seven courses below the floor. The gaps in the doorways were usually, but not always, bridged with thresholds of limestone slabs at the projected floor level (Fig. 19). After the walls were built, the foundation compartments were filled with hard packed gravel and rubbish to the projected floor level, which was plastered with mud. It is not quite certain whether the superstructure walls were built before filling in the foundations or afterwards, but I think afterwards. The floors in the Mycerinus valley temple varied somewhat in the various parts of the temple, quite apart from the difference of level between the western sanctuary and the court. In the temples of the small pyramids, III-a and III-b, the floors were fairly level. In that of III-c the floors sloped with the slope of the foundation platform from north to south, but less steeply.

### (3) Roofing

On the top of the corridor walls of the valley temple and on some of the magazine walls, we found the ends of decayed wooden logs about 20 cm. in diameter and 50 cm. long from the face of the wall to the end of the log. These logs were not set close together but separated by a space varying from 15

to 19 cm (Fig. 20). As found the logs were sunk to a depth of about 5 cm. in the tops of the walls, but this may have been due to pressure. The separation of the logs proves conclusively that a layer of planks or reeds or palm-leaf stems was laid over the logs to support the bricks and mud which protected the roof from rain. This type of roof is wonderfully effective in the Egyptian climate as long as the wood lasts, but is unsuited for covering wide spaces owing to the weakness of the logs. It is to be noted that all the roofed rooms in the five crude-brick temples were less than 320 cm. in width, except the portico and the anteroom of the vestibule of the Mycerinus valley temple. The logs were laid across the smaller dimension of each room.

In the wide vestibule room (III-377), the roof was carried on rafters supported by wooden columns which rested on four alabaster bases set in two rows. The bases were square blocks, the tops of which had been dressed down leaving a circular disc rising a couple of centimeters above the floor. The two porticos in the temples of III-*a* and III-*c* had no wall on the side towards the court to support the roof; and the rafters on this side were held up by wooden columns resting on circular limestone bases. The outer ends of the roofing logs rested on these rafters. In the case of the great portico of the valley temple, the character of the roof supports was not clear. The presence of the two pairs of antae in the northern and the southern walls led us at first to reconstruct the room on the analogy of the portico of the pyramid temple, with two rows of square crude-brick pillars corresponding in width to the antae, an eastern row of four pillars and two antae and a western row of two pillars and two antae. But a careful search failed to show any trace of the foundations of crude-brick pillars, and a consideration of the strength of a square pillar the width of the antae led to the conclusion that such a pillar was impracticable. It was finally decided that although square pillars may have been marked in the original plan, the roof had been supported by wooden columns of the same number and arrangement as the supposed square pillars (Figs. 21, 22). These must have rested on stone bases which, on the analogy of the vestibule room, should have been of alabaster. But the use of limestone is not to be excluded; and the fact that exactly six limestone bases were found in the second temple seems to indicate that these were the original six bases of the portico of Dynasty IV. The six wooden columns bore two lines of north to south rafters, which in turn carried the east to west roofing beams (or logs).

In the Chephren valley temple<sup>1</sup> the architraves were held in place by copper (?) dovetails with a heavy round pin extending vertically downwards from the underside. The copper (?) dovetail was placed in a hollow on the top of each granite pillar so that the pin and half the height of the dovetail were sunk in the pillar, while the upper half of the dovetail crossing the joint between two architrave stones was sunk to half of the remaining height in the bottoms of the two stones — one half in one stone and the other in the other stone. On the upper side of the joint, the ends of the two architrave stones were joined by another copper (?) dovetail. In the case of this granite temple where the architraves had to stand the strain of mounting the heavy roofing slabs, such a system of internal ties was much more necessary than in a wooden roofed temple. Nevertheless, the Egyptian was very fond of ties in woodwork, and it is altogether probable that the rafters of the rooms with columns were fastened to the columns and to each other. I would reconstruct the columns with a block between the top of the column and the rafters because the grain of the column running vertically was perhaps unsuited to the strain of a dovetail or other tie. The grain of the block would run in the direction of the grain of the rafters and the block would have been held on the top of the column by a heavy pin in the column resting in a hole in the bottom of the block. The rafters were probably dovetailed to the block and to each other as in the case of the granite structure with wooden dovetails, but some other tie may have been used. It is needless to say that no trace of the rafters or of the ties was found.

There is another type of roof used in Dynasty IV in crude-brick structures, that is, the leaning course vault. But, while this vault would have been suitable for roofing the small rooms of the lesser temples, no actual evidence was found of its use. The walls had, however, been so denuded that the absence of evidence was not decisive.

<sup>1</sup> Hoelscher, *Chephren*, p. 43.

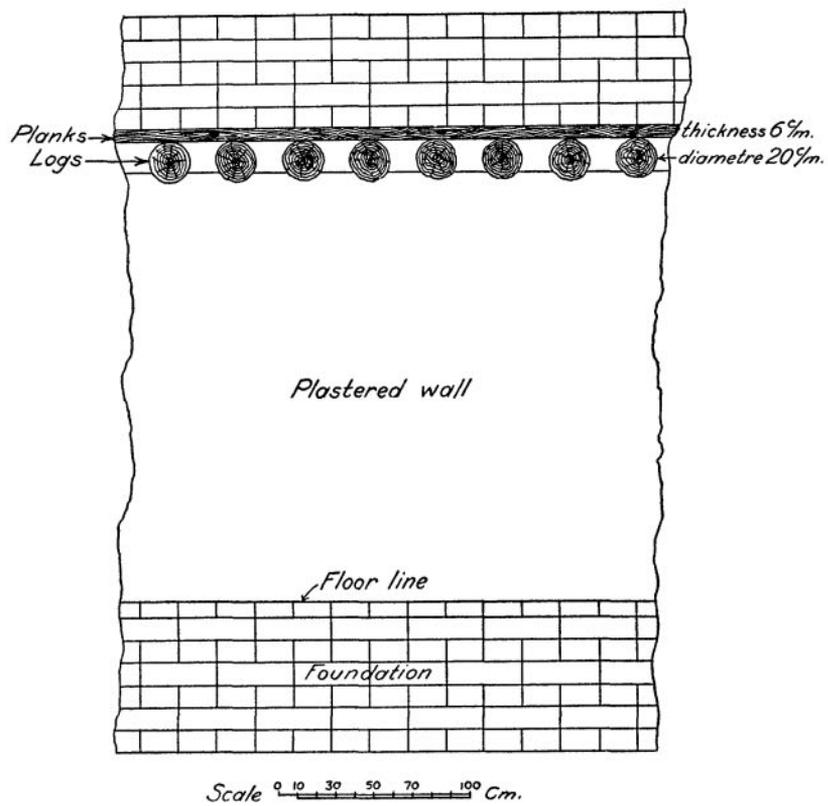
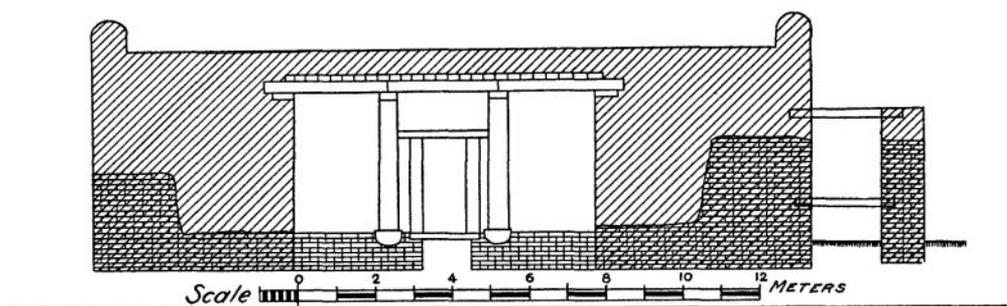
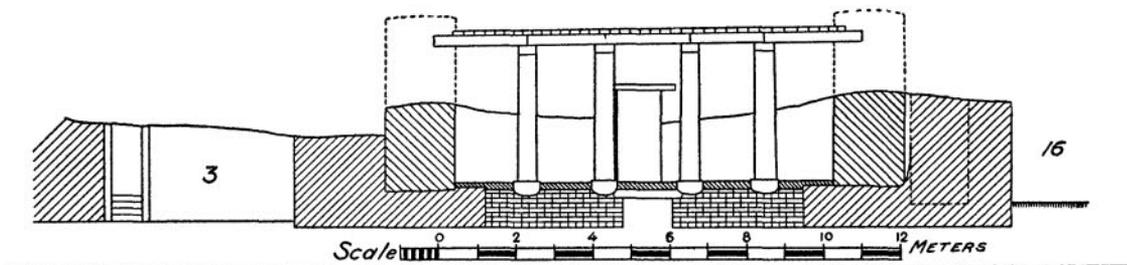


FIGURE 20



*Section-south-north through portico of M.V.T First Temple, showing restoration of columns and roof*

FIGURE 21



*Section south-north through the outer offering room M.V.T. I Second Temple, showing restoration of columns and roof.*

FIGURE 22

(4) *Doors and Windows*

It may be said at once that no windows either for light or air were discovered anywhere in the Mycerinus temples of crude brick. As Egyptian windows were usually at the top of the walls, all possibility of determining the presence and the form of the windows was lost with the destruction of the upper part of all walls. It must be assumed, however, that some of the rooms were provided with windows. In the chapels of the mastabas in the great cemetery, two types of windows have been found in crude-brick structures. One is the embrasure window, widening inwards and usually horizontal; the other is the multiple slot window, which consists of five to seven vertical slots each half a brick wide and five to seven courses high, left in the brickwork at the end of the room. The embrasure window usually accompanies the wooden roof, while the multiple slot window seems to be peculiar to the rooms roofed with the leaning course vault. Both were set high in the wall, the multiple slot window not so high as the other, and the former would have been in evidence in the Mycerinus temples if it had been used. It is therefore almost certain that the embrasure window was the type employed in those temples.

The doorways on the other hand were fairly well preserved, so that the doors could be confidently reconstructed. The doorways all have broad jambs. They fall into two types, those with stone thresholds, and those with mud floors. Four of the stone thresholds in the valley temple were of a particular construction — in the doorways from (III-1) to (III-2), from (III-2) to (III-4) and (III-20), and that in the later screen wall. All these were alike, but the best preserved was in the doorway from (III-1) to (III-2), bridging the doorway gap in the foundation wall. This consists of two broad slabs of fine white limestone, about 12 cm. thick. The outline of the jamb is grooved in a way which indicates that the broad jamb was cased with an upright slab of wood or stone about 15 or 20 cm. thick (see Fig. 19). The cased jamb ended at the edge of the outer threshold slab; and in the adjoining edge of the second slab, on each side, was a hole of the form of a quarter circle, which either formed the socket for the doorpost or contained a kerb socket. The door was of the two-leaf type, and a small hole bored in the second slab immediately north of the middle line between the socket holes was evidently for receiving the end of a vertical bolt which locked the northern leaf of the door on the inside. The simple grooves on the ends of the second slab probably served to hold the leaves of the door when open. The doorway in the later screen wall was also of the two-leaf type, but the other two were of the one-leaf type, also with a cased jamb. It seems necessary to reconstruct the top of the cased jamb with a lintel of the same material as the casing, wood or stone.

Three doorways in the temple of pyramid III-*a* also had stone thresholds — the entrance doorway, that from the entrance corridor (8) to the court portico (2), and that from the court portico (2) to the anteroom (3). These three were all different. The threshold of the entrance doorway was similar to the two-slab threshold of the valley temple but had a step inside the doorway against which the leaves closed. The threshold from (8) to (2) lay between the broad jambs only and consisted of three small slabs laid on the gravel packing but rising 4 cm. above the floor. The crude-brick door-jambs were built on the ends of the stone threshold; and the door socket was set in the mud floor in the inner angle of the jamb toward room (2). The third threshold from (2) to (3) likewise stretched between the broad door jambs only and consisted of two slabs, the second of which was cracked, set in the mud floor between the brick jambs (not under them) and rising 5 cm. above the mud floor.

The remaining doorways were plastered with mud on a level with the contiguous floors and had stone door sockets of the kerbed form set in the floor in the angles of the jambs.

The kerb socket for door posts consists of a curving rim of limestone, a segment of an ellipse, open on the side next to the narrow end of the jamb and also on that next to the wall. The inner side of the kerb is sloping, so that the doorpost, as it settled by the weight of the door, is forced inwards against the end of the jamb and the wall. This feature was probably of especial importance in preventing play in the doorpost, when the end of the post began to wear. I would suggest that the extra length of the upper end of the doorpost, which extends usually into a hole above the upper socket block was intended to allow for the sinking of the doorpost through wear. The door must have been hung high on the post

to allow for this sinking, leaving a space between the bottom of the door and the floor. This space was usually closed in the mastabas by a step or high threshold stone rising 5–15 cm. above the floor. The steps, 4–5 cm. high, formed by the thresholds of three of the doorways of the temple of III-*a*, served this purpose, but none was observed in the valley temple.

The door leaves were of the type so well known in both stone and wood, in actual examples as well as in models and pictures. The door leaf consisted of vertical boards held together by horizontal battens on the inside only. The battens were morticed to the round door posts, fastened with pegs in the mortice joints, and sometimes strengthened with copper bands. The fact that this type of door was used in the crude-brick temples built by Shepseskaf, was fully proved by the marks left in the plaster of two doorways in the temple of III-*a*, from room (3) to room (9) and from room (9) to room (10). The wearing mark of the doorpost was plain on the narrow end of the jamb, and the prints of the battens on the wall, caused by slamming the leaves back in opening the door. In the doorway from room (3) to room (9), three battens were marked, about 28 cm. apart with the lowest about 33 cm. above the floor. In the doorway from room (9) to room (10), two similarly spaced battens were visible.

The closed doors were fastened on the inside by bars probably operated by strings passing through a hole, or holes, in the door leaf. The bar was locked in place in all probability by one of the trick-lock devices of the ancient Egyptians. The best is that known to have been used in later times, in which certain pegs dropped into place in holes in the bar, when the bar was pulled into place by a string from the outside; in opening the door, these pegs were pushed up out of the bar by a rather large key which had a duplicate set of pegs to that set in the lock. In the double-leaf door, the bar slid in wooden clamps or brackets back and forth across the opening between the two leaves. It is probable that the hole in the middle of the floor of the threshold was used for fastening one leaf of the door before the other leaf was closed. In the case of the one-leaf door, the lock was of a similar character, but the bar slid into a hole in the wall behind the angle of the jamb. In the Mycerinus temples this hole appears to have been in the brickwork of the uncased doors, but in stone structures in the door casing. In the mastabas, but very rarely, a stone with a hole was set in the brickwork to take the end of the bar.

The roofs of the doorways were seen in several cases in the valley temple, where the brickwork above the door had sunk down in the doorway by decay. These roofs were always of wood, but were so badly rotted that the shape of the wooden elements could not be determined. I would reconstruct them as planks like the lintels of the cased doorways, but possibly they were of logs, or planks reinforced with logs. The brickwork was continued above the lintel to the height of the wall, which, in the doorways of the valley temple, was nearly a meter higher than the doorways. If the roofing were of logs, at least one plank must have crossed the top of the doorway to take the socket holes of the doorposts. In the houses in the court of the valley temple, two stone lintels, limestone slabs, were preserved over narrow doorways in rooms (I-306) and (307); and, in the Giza cemetery, one ordinary doorway was roofed with a thin stone slab (G 1351), but there, the weight was reduced by an arch in the brickwork above.

The doors all open inwards, and when closed the two sides of the door were covered by the broad jamb and the top by the lintel. The bottom was also covered in those doorways which had the step threshold of which evidence was found in the temple of III-*a*, but not in the Mycerinus valley temple. The bars, locks, and battens were on the inside, and only the latch strings hung out through the two small holes in the door. Thus the essential fittings of the door were protected and made difficult of access to plunderers. In the case of crude-brick walls and wooden doors, a determined thief could always have found his way in.